



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
1600 EAST LAMAR BLVD
ARLINGTON, TEXAS 76011-4511

January 13, 2012

EA-2012-015

Mr. Michael Perito
Vice President Operations
Entergy Operations, Inc.
Grand Gulf Nuclear Station
P.O. Box 756
Port Gibson, MS 39150

SUBJECT: GRAND GULF NUCLEAR STATION – NRC PROBLEM IDENTIFICATION AND
RESOLUTION INSPECTION REPORT No. 05000416/2011006 AND NOTICE
OF VIOLATION

Dear Mr. Perito:

On October 20, 2011, the U. S. Nuclear Regulatory Commission (NRC) completed the onsite portion of a team inspection at your Grand Gulf Nuclear Station. The enclosed report documents the inspection findings discussed with you and members of your staff during an exit meeting held on December 1, 2011.

The inspection examined activities conducted under your license as they relate to identification and resolution of problems, safety and compliance with the Commission's rules and regulations and with the conditions of your operating license. The team reviewed selected procedures and records, observed activities, and interviewed personnel. The team also interviewed a representative sample of personnel regarding the condition of your safety conscious work environment.

Based on the results of this inspection, the NRC has identified issues that were evaluated under the risk significance determination process as having very low safety significance (green). The NRC has also determined that one violation is associated with these issues. The violation was evaluated in accordance with the NRC Enforcement Policy. The current Enforcement is included on the NRC's Web site at <http://www.nrc.gov/about-nrc/regulatory/enforcement/enforce-pol.html>. The violation is cited in the enclosed Notice of Violation (Notice) and the circumstances surrounding this violation are described in detail in the subject inspection report. The violation involved the failure to correct an oil leak on the Division II emergency diesel generator lube oil storage tank sump that was known to have existed by your staff since 2004. This violation is being cited in the Notice because Grand Gulf failed to restore compliance within a reasonable period of time after the violation was identified, per Section 2.3.2 of the NRC Enforcement Policy.

You are required to respond to this letter and should follow the instructions specified in the enclosed Notice when preparing your response. If you have additional information that you believe the NRC should consider, you may provide it in your response to the Notice. The NRC

will use your response, in part, to determine whether further enforcement action is necessary to ensure compliance with regulatory requirements.

Based on the inspection sample, the inspection team concluded that the implementation of the corrective action program and overall performance related to identifying, evaluating, and resolving problems at Grand Gulf Nuclear Station was effective. Licensee identified problems were entered into the corrective action program at a low threshold. Problems were generally prioritized and evaluated commensurate with their safety significance and corrective actions were generally implemented in a timely manner. Corrective actions were generally implemented in a timely manner commensurate with their importance to safety and addressed the identified causes of problems. Lessons learned from industry operating experience were effectively reviewed and applied when appropriate. Audits and self-assessments were effectively used to identified problems and appropriate actions.

This report also documents two additional issues that were evaluated under the risk significance determination process as having very low safety significance (Green) and one issue that was evaluated to be of Severity Level IV. The NRC has determined that violations are associated with these issues. Additionally, two licensee-identified violations, which were determined to be of very low safety significance, are listed in this report. However, because of the very low safety significance and because they were entered into your corrective action program, the NRC is treating these findings as noncited violations, consistent with Section 2.3.2 of the NRC Enforcement Policy. These noncited violations are described in the subject inspection report.

If you contest the violations or the significance of the noncited violations, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555-0001, with copies to the Regional Administrator, U.S. Nuclear Regulatory Commission, Region IV, 1600 East Lamar Blvd, Arlington, Texas, 76011-4125; the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555-0001; and the NRC Resident Inspector at the facility. In addition, if you disagree with the cross-cutting aspect assigned to any finding in this report, you should provide a response within 30 days of the date of this inspection report, with the basis for your disagreement, to the Regional Administrator, Region IV, and the NRC Resident Inspector at the facility.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosures, and your response, if you choose to provide one, will be made available electronically for public inspection in the NRC Public Document Room or from the NRC's document system (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>. To the extent possible, your response should not include any personal privacy or proprietary information so that it can be made available to the Public without redaction.

Sincerely,



Ryan D. Alexander, Chief
Technical Support Branch
Division of Reactor Safety

M. Perito

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Dockets: 50-416
Licenses: NPF-29

Enclosures: Inspection Report and Notice of Violation 05000416/2011006
Attachment 1, Supplemental Information
Attachment 2, Initial Information Request

Electronic Distribution to Grand Gulf Nuclear Station

NOTICE OF VIOLATION

Entergy Operations, Inc.
Grand Gulf Nuclear Station

Docket: 50-416
License No.: NPF-29

EA-2012-015

During an NRC inspection conducted October 3 – 20, 2011, a violation of an NRC requirement was identified. In accordance with the NRC Enforcement Policy, the violation is listed below:

Criterion XVI of Appendix B of 10 CFR 50, "Corrective Action," requires that measures shall be established to assure that conditions adverse to quality, such as failures, malfunctions, deficiencies, deviations, defective material and equipment, and nonconformances are promptly identified and corrected.

Contrary to the above, since 2004, a condition adverse to quality was not promptly identified and corrected. Specifically, an uncharacterized flaw on the Division II emergency diesel generator lube oil sump had been leaking oil and this condition has not been corrected.

This violation is associated with a Green Significance Determination Process finding (EA-2012-015).

Pursuant to the provisions of 10 CFR 2.201, Entergy Operations, Inc., is required to submit a written statement or explanation to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555, with a copy to the Regional Administrator, Region IV, and a copy to the Senior Resident Inspector at the facility that is the subject of this Notice of Violation (Notice), within 30 days of the date of the letter transmitting this Notice. This reply should be clearly marked as "Reply to Notice of Violation EA-2012-015," and should include for each violation (1) the reason for the violation, or, if contested, the basis for disputing the violation or the severity level, (2) the corrective steps that have been taken and the results achieved, (3) the corrective steps that will be taken to avoid further violations, and (4) the date when full compliance will be achieved. Your response may reference or include previous docketed correspondence, if the correspondence adequately addresses the required response. If an adequate reply is not received within the time specified in this Notice, an Order or a Demand for Information may be issued as to why the license should not be modified, suspended, or revoked, or why such other action as may be proper should not be taken. Where good cause is shown, consideration will be given to extending the response time.

If you contest this enforcement action, you should also provide a copy of your response, with the basis for your denial, to the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001.

Because your response will be made available electronically for public inspection in the NRC Public Document Room, or from the NRC's document system (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>, to the extent possible, it should not include any personal privacy, proprietary, or safeguards information so that it can be made available to the public without redaction. If personal privacy or proprietary information is

necessary to provide an acceptable response, then please provide a bracketed copy of your response that identifies the information that should be protected and a redacted copy of your response that deletes such information. If you request withholding of such material, you must specifically identify the portions of your response that you seek to have withheld and provide in detail the basis of your claim of withholding (e.g., explain why the disclosure of information will create an unwarranted invasion of personal privacy or provide the information required by 10 CFR 2.390(b) to support a request for withholding confidential commercial or financial information. If safeguards information is necessary to provide an acceptable response, please provide the level of protection described in 10 CFR 73.21.

In accordance with 10 CFR 19.11, you may be required to post this Notice within two working days of receipt.

Dated this 13th day of January 2012.

U.S. NUCLEAR REGULATORY COMMISSION

REGION IV

Docket: 05000416

License: NPF-29

Report: 05000416/2011006

Licensee: Entergy Operations, Inc.

Facility: Grand Gulf Nuclear Station

Location: Waterloo Road
Port Gibson, MS

Dates: October 3 – 20, 2011

Team Leader: R. Deese, Senior Project Engineer, Project Branch B, DRP

Inspectors: B. Rice, Resident Inspector, Project Branch C, DRP
J. Watkins, Reactor Inspector, Engineering Branch 2, DRS
J. Dykert, Project Engineer, Project Branch A, DRP

Accompanying Personnel: C. Speer, Reactor Inspector (NSPDP), Technical Support Branch, DRS

Approved By: Ryan D. Alexander, Chief
Technical Support Branch
Division of Reactor Safety

SUMMARY OF FINDINGS

IR 05000416/2011006; November 20, 2009 – October 20, 2011:
Grand Gulf Nuclear Station "Biennial Baseline Inspection of the Identification and Resolution of Problems."

The report covers a 2-week period of inspection by a senior project engineer, a reactor inspector, a project engineer, and a resident inspector. One Green cited and three Green noncited violations were identified during this inspection. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using Inspection Manual Chapter 0609, "Significance Determination Process." The cross-cutting aspect is determined using Inspection Manual Chapter 0310, "Components within the Cross Cutting Areas." Findings for which the significance determination process does not apply may be Green or be assigned a severity level after NRC management review. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG 1649, "Reactor Oversight Process," Revision 4, dated December 2006.

Identification and Resolution of Problems

The team reviewed approximately 200 condition reports, work orders, engineering evaluations, root and apparent cause evaluations, and other supporting documentation to determine if problems were being properly identified, characterized, and entered into the corrective action program for evaluation and resolution. The team reviewed a sample of system health reports, self-assessments, trending reports and metrics, and various other documents related to the corrective action program.

The inspectors concluded that the licensee was, in general, effective in identifying, evaluating, and resolving problems. Grand Gulf personnel were identifying and entering issues into the corrective action program at appropriately low thresholds as evidenced by a large number of condition reports issued. The team determined that the licensee generally screened issues appropriately for operability and reportability. The team noted that issues were typically identified promptly and prioritized commensurate with their safety significance. Most root and apparent cause analyses appropriately considered extent of condition and previous occurrences. The team concluded that the corrective actions were generally identified and implemented promptly. The team found that the licensee had established and was maintaining an environment at Grand Gulf where employees felt free to raise safety concerns without fear of retaliation.

The licensee appropriately evaluated industry operating experience for relevance to the facility and had entered applicable items in the corrective action program. The licensee used industry operating experience when performing root cause and apparent cause evaluations. The licensee performed effective quality assurance audits and self-assessments, as demonstrated by self-identification of corrective action program areas for improvement.

A. NRC-Identified and Self-Revealing Findings

Cornerstone: Mitigating Systems

Green. The team identified a Green noncited violation of 10 CFR 50 Appendix B, Criterion XVI, "Corrective Actions," for the failure to promptly identify and correct an inadequate venting procedure for the reactor core isolation cooling system. Corrective actions were not taken in a timely enough manner such that resolution was reached prior to time to demonstrate the licensee met their applicable technical specification surveillance requirement. The licensee entered this condition into their corrective action program as condition report CR-GGN-2011-07669 and subsequently altered their procedure, which performs the technical specification surveillance requirement to demonstrate that it meets the applicable requirements.

This finding is more than minor because it affects the procedure quality attribute of the mitigating systems cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Using Manual Chapter 0609.04, "Phase 1 - Initial Screening and Characterization of Findings," this finding was of very low safety significance because it did not create a loss of system safety function of a single train for greater than the technical specification allowed outage times, and did not affect seismic, flooding, or severe weather initiating events. This finding has a cross-cutting aspect in the area of human performance associated with the decision making component. The licensee did not use conservative assumptions when deciding to pursue corrective action for venting of the reactor core isolation cooling system piping to demonstrate their action was safe in order to proceed rather than demonstrating it was unsafe to disapprove the action [H.1(b)]. (Section 4OA2.5a)

Severity Level IV. The team identified a Severity Level IV noncited violation of 10 CFR 50.73, "Licensee Event Report System," associated with the licensee's failure to submit a licensee event report within 60 days following discovery of an event meeting the reporting criteria as specified. Specifically, the licensee was not meeting the technical specification surveillance requirement for venting the reactor core cooling isolation system and subsequently the system was inoperable in excess of the allowed outage time which constituted a condition prohibited by technical specifications. The licensee entered this condition into their corrective action program as condition report CR-GGN-2011-8890.

This finding affects the mitigating systems cornerstone and is greater than minor because the NRC relies on licensees to identify and report conditions or events meeting the criteria specified in the regulations in order to perform its regulatory function. Because this issue affected the NRC's ability to perform its regulatory function, it was evaluated with the traditional enforcement process. Consistent with the guidance in Section 6.9 of the Enforcement Policy, this finding was determined to be a Severity Level IV noncited violation. This finding has no crosscutting aspect, as it is not indicative of current performance (Section 4OA2.5b).

Green. The team identified a Green noncited violation of 10 CFR 50 Appendix B, Criterion XVI, "Corrective Actions," for the failure to identify and document a significant condition adverse to quality and report the condition to appropriate levels of management. As a result, a root cause analysis was not performed and more comprehensive actions to prevent recurrence were not considered for the condition. The licensee entered this condition into their corrective action program as condition report CR-GGN-2011- 07671, to address the problem.

This finding is more than minor because it is associated with the protection against external factors attribute of the mitigating systems cornerstone and affects the associated cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Using Manual Chapter 0609.04, "Phase 1 - Initial Screening and Characterization of Findings," this finding was of very low safety significance (Green) because it did not create a loss of system safety function of a single train for greater than the technical specification allowed outage times, and did not affect seismic, flooding, or severe weather initiating events. This finding has a cross-cutting aspect in the area of human performance associated with the resources component because the licensee's procedures for significant conditions adverse to quality were not complete and accurate enough to prevent the condition. [H.2(c)]. (Section 40A2.5c)

Green. The team identified a Green cited violation of 10 CFR 50 Appendix B, Criterion XVI, "Corrective Actions," for the failure to promptly identify and correct a leak on the Division II emergency diesel generator lube oil sump. Despite identification of the leak in 2004, ineffective attempts to repair the leak and previous identification by the NRC in 2009, the licensee dispositioned the leak as "accept as-is" without a full understanding of the lube oil sump leak and potential consequences. The licensee entered this condition into their corrective action program as condition report CR-GGN-2011-8880.

The condition was discovered and documented by the licensee in 2004. This finding was initially determined by the NRC to be a minor violation in 2009. Paragraph F of Section 2.10 of the NRC Enforcement Manual states in part that where a licensee does not take corrective action for a minor violation, the matter should be considered more than minor and associated with a green inspection finding and dispositioned in a cited or noncited violation, as appropriate. This finding is now determined to be more than minor because if left uncorrected the failure to restore the lube oil sump for the Division II emergency diesel generator to design conditions would have the potential to lead to a more significant safety concern, specifically, the leak could worsen and potentially affect operability of the emergency diesel generator. Due to the licensee's failure to restore compliance within a reasonable time after the violation was identified, this violation is being cited as a Notice of Violation consistent with Section 2.3.2 of the Enforcement Policy. This finding affects the mitigating systems cornerstone. Using Manual Chapter 0609.04, "Phase 1 - Initial Screening and Characterization of Findings," this finding was of very low safety significance because it did not create a loss of system safety function of a single train for greater than the technical specification allowed outage times, and did not affect seismic, flooding, or severe weather initiating events. This finding has a cross-cutting aspect in the area of problem identification and

resolution associated with the corrective action program component because the licensee failed to thoroughly evaluate this problem such that the resolutions addressed the causes [P.1(c)]. (Section 4OA2.5d)

B. Licensee-Identified Violations

Violations of very low safety significance, which were identified by the licensee have been reviewed by the inspectors. Corrective actions taken or planned by the licensee have been entered into the licensee's corrective action program. These violations and corrective action tracking numbers (condition report numbers) are listed in Section 4OA7.

REPORT DETAILS

4. OTHER ACTIVITIES (OA)

4OA2 Problem Identification and Resolution (71152)

The team based the following conclusions on the sample of corrective action documents that were initiated in the assessment period, which ranged from November 20, 2009, to the end of the on-site portion of this inspection on October 20, 2011.

.1 Assessment of the Corrective Action Program Effectiveness

a. Inspection Scope

The team reviewed approximately 200 condition reports, including associated root cause, apparent cause, and direct cause evaluations, from approximately 16,000 that were initiated between November 20, 2009, and October 20, 2011, to determine if problems were being properly identified, characterized, and entered into the corrective action program for evaluation and resolution. The team reviewed a sample of system health reports, operability determinations, self-assessments, trending reports and metrics, and various other documents related to the corrective action program. The team evaluated the licensee's efforts in establishing the scope of problems by reviewing selected logs, work requests, self-assessments results, audits, system health reports, action plans, and results from surveillance tests and preventive maintenance tasks. The team reviewed work requests and attended the licensee's daily corrective action review board and management review committee meetings to assess the reporting threshold, prioritization efforts, and significance determination process, as well as observing the interfaces with the operability assessment and work control processes when applicable. The team's review included verifying the licensee considered the full extent of cause and extent of condition for problems, as well as how the licensee assessed generic implications and previous occurrences. The team assessed the timeliness and effectiveness of corrective actions, completed or planned, and looked for additional examples of similar problems. The team conducted interviews with plant personnel to identify other processes that may exist where problems may have been identified and addressed outside the corrective action program.

The team also reviewed corrective action documents that addressed past NRC-identified violations to ensure that the corrective action addressed the issues as described in the inspection reports. The inspectors reviewed a sample of corrective actions closed to other corrective action documents to ensure that corrective actions were still appropriate and timely.

The team considered risk insights from both the NRC and Grand Gulf Nuclear Station risk assessments to focus the sample selection and plant tours on risk significant systems and components. Based on this review, the team selected to focus on the safety related 125 Vdc electrical system. The samples reviewed by the team focused on, but were not limited to, this system. The team also expanded their review to include

five years of evaluations involving the safety related 125 Vdc electrical system to determine whether problems were being effectively addressed. The team conducted a walkdown of this system to assess whether problems were identified and entered into the corrective action program.

b. Assessments

Effectiveness of Problem Identification

The team found that the licensee has been identifying problems and entering them into their corrective action program at appropriately low thresholds in accordance with the licensee's corrective action program guidance and NRC requirements. The licensee had written approximately 16,000 corrective action documents during the two-year period of review. The team identified one example that characterized failures of the licensee to document conditions correctly into the corrective action program. In addition, the NRC identified one other issue over the 2-year inspection period that was attributed to the licensee's failure to identify a condition adverse to quality. Some examples included:

- The team identified a failure to identify the burning of insulation on turbine-driven pump turbines as a significant condition adverse to quality in their corrective action program and document and report this condition accordingly. As a result, a root cause analysis was not performed and more comprehensive actions to prevent recurrence were not considered for the condition (Section 40A2.5c).
- The team reviewed a noncited violation for failure to ensure that manholes MHH01, MH20, and MH21 were properly sealed to prevent entry of flammable liquid. Licensee personnel failed to initiate a condition report when the issue was identified during the development of their engineering change package properly (05000416/2011003-01).

Effectiveness of Prioritization and Evaluation of Issues

The team concluded that the licensee exhibited some weaknesses when performing and/or documenting evaluations of conditions adverse to quality during this assessment period. The team determined that the evaluation of issues was generally appropriate for the priority assigned. Evaluations were generally performed by an appropriate organization within the time period required by the licensee's corrective action program. For those evaluations which could not be performed in the required time periods, the licensee generally used appropriate procedures to extend deadlines with appropriate levels of management involvement. Some examples included:

- The team reviewed a licensee identified violation associated with a failure to adequately correct a condition adverse to quality. Specifically, on February 4, 2010, in response to noncited violation NCV 05000416/2009008-01, "Inadequate Procedure used to vent the Reactor Core Isolation Cooling System," the licensee took ineffective action to address a failure to meet Technical Specification Surveillance Requirement 3.5.3.1 when changing the procedure for venting the discharge piping for the reactor core isolation cooling system. This change was

inadequate in that it did not ensure the piping was full of water because it vented the piping and then performed confirmatory ultrasonic testing (Section 4OA7.2).

- The team reviewed a licensee identified violation condition where the licensee was issued a noncited violation for the failure to properly assess the risk impact of maintenance on the switchyard batteries. The licensee identified that the actions taken per condition report CR-GGN-2010-6668 did not adequately address the noncited violation in that the corrective action was focused on the work being performed on the batteries versus appropriately evaluating the heavy work being performed in the switchyard (Section 4OA7.1).
- The team identified the failure to promptly identify and correct a leak on the Division II emergency diesel generator lube oil sump. Despite ineffective attempts to repair the leak and previous identification by the NRC in 2009, the licensee dispositioned the leak as "accept as-is" without a full understanding of what the actual condition of the sump. (Section 4OA2.5d).
- The team reviewed a Green finding involving the licensee's failure to prioritize and thoroughly evaluate the extent of the cause of the water grounding sensitive electronic equipment near a steam leak. As a result, the reactor experienced an automatic scram on low reactor water level due to the "B" reactor feed pump minimum flow valve failing open and a subsequent trip of the "A" reactor feed pump (05000416/2010002-03).
- The team reviewed a noncited violation involving the failure to ensure that fire barriers protecting safety-related areas were functional during monthly fire barrier inspections. Plant personnel failed to adequately evaluate and provide proper maintenance for degrading fire doors (05000416/2010004-01).
- The team reviewed a noncited violation of 10 CFR Part 50 Appendix B, Criterion V involving a failure to follow procedures which resulted in an inadequate operability evaluation. On December 5, 2010, a spurious actuation of the standby service water pump house ventilation system occurred, resulting in pump house temperatures dropping below the design limit. In their operability evaluation, the licensee failed to consider the actual freezing conditions occurring at the site at that time, and operations did not secure the fan after spurious operations until questioned by the inspectors (05000416/2010005-01).
- The team reviewed a noncited violation of 10 CFR 50.65(a)(2) for the licensee's failure to demonstrate that the performance of the control room air conditioning system was being effectively controlled through the performance of preventive maintenance. Engineering did not properly evaluate maintenance rule functional failures (05000416/2011002-03).

Effectiveness of Corrective Action Program

The team assessed a sample of condition reports to determine whether conditions adverse to quality were effectively being corrected. The attributes that were assessed included timely identification, appropriateness of corrective actions, corrective actions being implemented in a timely manner, and the effectiveness of the corrective actions to resolve the condition. The team concluded that actions to correct conditions adverse to quality were generally effective. Some examples included:

- The team noted the licensee's failure to promptly identify and correct an inadequate venting procedure for the reactor core isolation cooling system. Corrective actions were not taken in a timely manner such that resolution was reached prior to time to demonstrate the licensee met their applicable technical specification surveillance requirement (Section 4OA2.5a).
- The team reviewed a noncited violation for failure to remove foreign material from the control room air conditioning oil and Freon subsystems. Plant personnel placed a train of the system back in service without cleaning the oil and Freon after finding a strainer on the compressor 90 percent clogged. The licensee had failed to appropriately address the foreign material in the control room air conditioning subsystems (05000416/2010004-03).
- The team reviewed a licensee identified noncited violation for failure to monitor air leakage coming from the bottom of emergency diesel generator air filter 1P75D057A. Specifically, engineering had identified in May 2009 that a small weeping of air leaking from the petcock drain connection of the air filter. The leak was scheduled to be repaired in the November 2010 system outage. No formal process was put in place to monitor this air leak other than informal walk downs done by system engineering once a month (Condition Report CR-GGN-2009-05859).
- The team reviewed a licensee identified noncited violation involving a degraded inspection port gasket on the fan B gearbox of service water cooling tower A which was weeping oil. A work order was modified to add steps to perform a repair of the gearbox by replacing the defective gasket. Maintenance personnel signed the work order as complete without performing the additional instructions (Condition Report CR-GGN-2010-02427).
- The team reviewed a noncited violation for failure to take timely corrective actions to correct degradation of the reactor core isolation cooling flow control system which ultimately resulted in the reactor core isolation cooling turbine governor failing its surveillance test (05000416/2010005-02).
- The team reviewed a cited violation of 10 CFR 50.47(b)(10) for the failure to develop and have in place guidelines for choice of protective actions during an emergency that were consistent with federal guidance. Federal guidance for choice of protective actions during an emergency state that evacuation is seldom justified when doses are less than protective action guidelines. The licensee's automatic process that

extended existing protective action recommendations, with changes in wind direction without considering radiation dose (05000416/2010005-03).

- The team reviewed a noncited violation of 10 CFR Part 50, Appendix B, Criterion XVI, involving a failure to determine the cause and prevent recurrence of the train B control room air conditioning compressor tripping due to low oil pressure. On December 13, 2010, the compressor tripped on low oil pressure after the licensee had completed a root cause analysis to identify and prevent recurrence of a similar trip on October 14, 2010 (05000416/2010002-05).
- The team reviewed a noncited violation of 10 CFR Part 50 Appendix B, Criterion XVI, involving the failure to take adequate corrective actions for a condition on the Division III emergency diesel generator. The diesel generator was rendered inoperable due to a faulty fuse clip of the same design and function as a previously faulty fuse clip (05000416/2011003-06).

.2 Assessment of the Use of Operating Experience

a. Inspection Scope

The team examined the licensee's program for reviewing industry operating experience, including reviewing the governing procedure and self-assessments. A sample of operating experience notification documents that had been issued during the assessment period were reviewed to assess whether the licensee had appropriately evaluated the notification for relevance to the facility. The team also examined whether the licensee had entered those items into their corrective action program and assigned actions to address the issues. The team reviewed a sample of root cause evaluations and significant condition reports to verify if the licensee had appropriately included industry operating experience. Specific Operating Experience examples reviewed are listed in the attachment.

b. Assessment

Overall, the team determined that the licensee appropriately evaluated industry operating experience for relevance to the facility. The team determined that the licensee had entered all applicable items into the corrective action program in accordance with station procedures. The team noted that the licensee had an effective methodology for entering and tracking items into the site operating experience database and into the corrective action program. The licensee used the same timeliness and management review requirements as those used for action request/condition reports. The team concluded that the licensee evaluated industry operating experience when performing root cause and apparent cause evaluations. The licensee appropriately incorporated both internal and external operating experience into lessons-learned for training and pre-job briefs.

The team considered in their review a noncited violation for the licensee's failure to provide adequate testing procedures, which resulted in the high pressure core spray system minimum flow valve inadvertently stroking during a surveillance test. The

stroking resulted in unplanned inoperability of the system. The licensee had not incorporated operating experience from a similar event that had occurred at another Entergy site (05000416/2011003-05).

.3 Assessment of Self-Assessments and Audits

a. Inspection Scope

The team reviewed a sample of licensee self-assessments and audits to assess whether the licensee was regularly identifying performance trends and effectively addressing them. The team also reviewed audit reports to assess the effectiveness of assessments in specific areas. Specific self-assessment documents and audits reviewed are listed in the attachment.

b. Assessment

Over the inspection period, the licensee produced numerous self-assessments and quality assurance audits. The team reviewed 12 audits and self-assessments. The licensee was effective in utilizing experts external to the site, to help assess performance, and appropriately entered deficient conditions into the corrective action program for resolution. The team concluded that the licensee's self-assessments and audits were effective in early identification of problems. The team concluded that the licensee had a thorough and self-critical self-assessment and audit process.

.4 Assessment of Safety-Conscious Work Environment

a. Inspection Scope

The inspection team conducted twenty-one interviews of various site personnel. The participants represented various functional organizations, including long term contractors. These interviews were designed to elicit a qualitative assessment of the degree to which the participants believed the licensee had established and maintained a safety-conscious work environment at Grand Gulf Nuclear Station and were based upon the NRC's definition of a safety-conscious work environment:

An environment in which employees feel free to raise safety concerns, both to their management and to the NRC, without fear of retaliation and where such concerns are promptly reviewed, given the proper priority based on their potential safety significance, and appropriately resolved with timely feedback to employees.

The team reviewed the results of the licensee's 2009 Nuclear Safety Culture Assessment and factored noted weaknesses in safety culture at the site into their interviews of personnel.

b. Assessment

The team determined that the licensee maintained a safety-conscious work environment. Based upon the responses received during the individual interviews, the team concluded

that the licensee had established and was maintaining an environment where workers felt free to raise safety concerns both to their management and to the NRC without fear of retaliation. Most employees indicated that they would raise safety concerns to their immediate supervisor. Most employees indicated they would use the chain of command or contact the NRC's resident inspectors if their concerns were not being adequately addressed. Most employees mentioned that they would write condition reports, in addition to raising concerns to their supervisors. However, the NRC inspection team noted that two of the personnel interviewed were not aware that the NRC was an available path to raise safety concerns.

From the interviews, the team found that none of the individuals could recall any occasions where they, or another employee, had been subjected to discrimination for raising safety concerns. None of the individuals could provide examples where plant management had failed to take actions to prevent retaliation against individuals who raised safety concerns.

The team noted that efforts by management to reinforce their safety conscious work environment policy at the station could be more effective. Most station employees could not define the term "safety conscious work environment," but when asked to describe the aspects of the policy, most employees described a healthy environment. The inspectors noted a recent e-mail from the Entergy Chief Executive Officer reinforcing the corporate safety conscious work environment policy had not been read by most of the interviewees and about half could not recall the e-mail message.

The team concluded that the licensee was addressing its weaknesses from the 2009 Nuclear Safety Culture Assessment. Most notably, the team noted that communications between site senior management and the staff had improved within the last year.

.5 Specific Issues Identified During This Inspection

a. Failure to Take Timely Corrective Actions for Reactor Core Isolation Cooling System Venting

Introduction. The team identified a Green noncited violation of 10 CFR 50 Appendix B, Criterion XVI, "Corrective Actions," for the failure to promptly identify and correct an inadequate venting procedure for the reactor core isolation cooling system.

Description. The team conducted a review of the licensee's actions to previous violations related to the venting of the reactor core isolation cooling system. In NRC Inspection Report 05000416/2007005, inspectors wrote NCV 05000416/2007005-01, "Inadequate Procedure Used to Vent the Reactor Core Isolation Cooling System," for the licensee's failure to demonstrate compliance with Technical Specification Surveillance Requirement 3.5.3.1 due to an inadequate surveillance procedure.

In 2009, a problem identification and resolution team reviewed the actions taken for the 2007 noncited violation and documented noncited violation NCV 05000416/2009008-01, "Inadequate Procedure Used to Vent the Reactor Core Isolation Cooling System." The team identified a violation of Technical Specification Surveillance Requirement 3.5.3.1

because the licensee failed to establish an adequate procedure to demonstrate compliance with the surveillance requirement.

For this inspection, the team reviewed the licensee's actions taken after the 2009 problem identification and resolution team inspection presented the results of their inspection. This inspection team learned that the licensee entered the failure to meet Technical Specification Surveillance Requirement 3.5.3.1 into their corrective action program as condition report CR-GGN-2009-06249.

The inspectors discovered that the licensee did not complete actions to change their procedure to meet the Technical Specification Surveillance Requirement to include ultrasonic testing of the piping until February 4, 2010. The team questioned the timing of this corrective action since the Technical Specification Surveillance Requirement was required to be accomplished every 31 days and the action was not completed until 72 days later. "Operability Determinations and Functionality Assessments for Resolution of Degraded or Nonconforming Conditions Adverse to Quality or Safety," in Part 9900, Technical Guidance, of the NRC Inspection Manual states in part that determining whether the licensee is making reasonable efforts to complete corrective actions promptly, the NRC will consider the effects on operability. The team considered this action untimely because not completing an adequate technical specification surveillance requirement within the surveillance period would cause the system to be inoperable. The team judged that not completing an adequate venting procedure could have affected the operability of the reactor core isolation cooling system and considered the failure to maintain an adequate surveillance procedure to be a performance deficiency.

Analysis. This finding is more than minor because it affects the procedure quality attribute of the mitigating systems cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Using Manual Chapter 0609.04, "Phase 1 - Initial Screening and Characterization of Findings," this finding was of very low safety significance because it did not create a loss of system safety function of a single train for greater than the technical specification allowed outage times, and did not affect seismic, flooding, or severe weather initiating events. This finding has a cross-cutting aspect in the area of human performance associated with the decision making component. The licensee did not use conservative assumptions when deciding to pursue corrective action for venting of the reactor core isolation cooling system piping to demonstrate their action was safe in order to proceed rather than demonstrating it was unsafe to disapprove the action [H.1(b)].

Enforcement. 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," states in part that measures shall be established to assure that conditions adverse to quality are promptly identified and corrected. Contrary to this requirement, from November 24, 2009, to February 4, 2010, the licensee failed to assure that conditions adverse to quality were promptly identified and corrected. Specifically, the licensee failed to correct deficiencies identified in Condition Report CR-GGN-2009-06249, to verify that the reactor core isolation cooling system discharge piping was filled with water every 31 days as required by Technical Specification 3.5.3.1. Because this finding is of very low safety significance and was entered into the licensee's corrective action program as

condition report CR-GGN-2011-07669, this violation is being treated as a noncited violation, consistent with Section 2.3.2 of the NRC Enforcement Policy: NCV 05000416/2011006-01, "Failure to Take Timely Corrective Actions for Reactor Core Isolation Cooling System Venting."

b. Failure to Submit a Licensee Event Report for an Inoperable Reactor Core Isolation Cooling System

Introduction. The team identified a Severity Level IV noncited violation of 10 CFR 50.73 for the failure to submit a licensee event report for the reactor core isolation cooling system being inoperable.

Description. In NRC Inspection Report 05000416/2007005, inspectors documented a Green noncited violation for the licensee's failure to have an adequate procedure to verify the discharge piping of the reactor core isolation cooling system was full of water as required by Technical Specification Surveillance Requirement 3.5.3.1.

In NRC Inspection Report 05000416/2009008, inspectors documented a Green noncited violation for the licensee's failure to meet Technical Specification Surveillance Requirement 3.5.3.1.

The team noted that in both of these previous cases, the issue was raised that the technical specification surveillance requirement was not being adequately met by the licensee's actions. The team further noted that inadequate performance of a procedure used to meet the technical specification surveillance requirement equated to not performing the technical specification surveillance requirement.

Technical Specification Surveillance Requirement 3.0.3 addresses missed performances of technical specification surveillances. Performance within 24 hours or allowance of justification of a longer delay period in a risk analysis and risk management was allowed. Technical Specification Surveillance Requirement 3.0.3 further described that if the surveillance was not performed within the delay period, the limiting condition for operation must immediately be declared. The limiting condition for operation was never declared for this condition. The team concluded that prior to June 2011, when the licensee adequately verified the discharge piping of the reactor core isolation cooling system was full of water; they were in the limiting condition for operation shutdown action statement.

Limiting Condition for Operation 3.5.3 was 14 days and required the licensee to be in Mode 3 within 12 hours if not cleared. The licensee's surveillance requirement was inadequate in excess of those times. The team concluded that the licensee was in a condition prohibited by technical specifications and should have submitted a licensee event report as required by 10 CFR 50.73, "Licensee Event Reports."

Analysis. The performance deficiency associated with this finding involved the licensee's failure to report a required licensee event report. This finding affects the Mitigating Systems Cornerstone and is greater than minor because the NRC relies on licensee to identify and report conditions or events meeting the criteria specified in the

regulations in order to perform its regulatory function. Because this issue affected the NRC's ability to perform its regulatory function, it was evaluated with the traditional enforcement process. Consistent with the guidance in Section 6.9.d.9 of the NRC Enforcement Policy, this finding was determined to be of Severity Level IV. This finding has no crosscutting aspect, as it is not indicative of current performance.

Enforcement. Title 10 CFR 50.73(a)(1) requires, in part, that the holder of an operating license submit licensee event reports for any event of the type described in this paragraph within 60 days after the discovery of the event. Title 10 CFR 50.73(a)(2)(i)B requires, in part, that the licensee shall report any operation or condition which was prohibited by plant technical specifications. Contrary to the above, from July 1985 to December 2009, the licensee failed to report a condition, which was prohibited by plant technical specifications. Specifically the licensee failed to report their operation beyond the 14 day limiting, condition for operation time of Technical Specification 3.5.3, and beyond the associated 12-hour shutdown action statement. This is a Severity Level IV noncited violation consistent with Section 6.9.d.9 of the NRC Enforcement Policy. Because this finding is of very low safety significance and has been entered into the corrective action program as condition report CR-GGN-2011-8890, this violation is being treated as a noncited violation consistent with Section 2.3.2 of the NRC Enforcement Policy: NCV 05000416/2011006-02, "Failure to Report a Condition Prohibited by Technical Specifications."

c. Failure to Document a Condition as a Significant Condition Adverse to Quality

Introduction. The team identified a Green noncited violation of 10 CFR 50 Appendix B, Criterion XVI, "Corrective Actions," for the failure to identify and document a significant condition adverse to quality and report the condition to appropriate levels of management.

Description. The team conducted a review of the licensee's follow-up to three previous violations related to events where insulation on one of the reactor feed pumps had caused a fire, where charring was discovered on the insulation of the turbine for the reactor core isolation cooling system, and where the insulation of the turbine for the reactor core isolation cooling system caused smoke in the auxiliary building.

In 2009, a problem identification and resolution team reviewed the licensee's actions for the reactor feed pump fire and the charred insulation on the turbine for the reactor core isolation cooling system. The burning insulation on the turbine-driven pump turbines had the potential for creating a fire and was considered to be a significant condition adverse to quality. The inspectors found that the licensee had not reviewed the events and the causes of the events that could be attributed to the oil, which was common to all three events. Based on this the inspectors issued a noncited violation for the failure to identify and correct oil-impregnated insulation on pump turbines in their exit meeting.

The 2011 team reviewed the licensee's corrective actions after the 2009 problem identification and resolution team inspectors had presented the results of their inspection. The team determined that on November 24, 2009, after the exit meeting, the licensee entered the condition into their corrective action program as condition report

CR-GGN-2009-06250. This condition report captured most of the 2009 inspection team's concerns, but did not describe the condition as a significant condition adverse to quality in the condition report. Because the issue was not identified as a significant condition adverse to quality, the condition report went through the licensee's normal screening process and did not screen as significant. The licensee screened the issue as a second tier issue, and completed an apparent cause evaluation on December 31, 2009.

On January 14, 2010, the 2009 team issued NRC Inspection Report 05000416/2009008 along with noncited violation NCV 050000416/2009008-02, "Failure to Identify and Correct Oil-Impregnated Insulation on Pump Turbines." This NCV categorized the issue as a significant condition adverse to quality. The licensee failed to reconcile the categorization of the significant condition adverse quality in the inspection report with the information that had been entered into the corrective action system. As a result, the issue was not identified in the corrective action program as a significant condition adverse to quality, which would have called for performance of a root cause analysis, and additional management involvement.

The inspectors considered the failure to identify a significant condition adverse to quality to be a performance deficiency.

Analysis. This finding is more than minor because it is associated with the protection against external factors attribute of the mitigating systems cornerstone and affects the associated cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Using Manual Chapter 0609.04, "Phase 1 - Initial Screening and Characterization of Findings," this finding was of very low safety significance (Green) because it did not create a loss of system safety function of a single train for greater than the technical specification allowed outage times, and did not affect seismic, flooding, or severe weather initiating events. This finding has a cross-cutting aspect in the area of human performance associated with the resources component because the licensee's procedures for significant conditions adverse to quality were not complete and accurate enough to prevent the condition. [H.2(c)].

Enforcement. 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," states in part that the identification of a significant condition adverse to quality, shall be documented and reported to appropriate levels of management. Contrary to this requirement, the licensee failed to identify a significant condition adverse to quality, document and report to appropriate levels of management. Specifically, the licensee failed to identify the burning of insulation on turbine-driven pump turbines as a significant condition adverse to quality in their corrective action program, document this condition, and report to appropriate levels of management.. Because this finding is of very low safety significance and was entered into the licensee's corrective action program as condition report CR-GGN-2011-07671, this violation is being treated as a noncited violation, consistent with Section 2.3.2 of the NRC Enforcement Policy: NCV 05000416/2011006-03, "Failure to Document a Condition as a Significant Condition Adverse to Quality."

d. Inadequate Corrective Action for a Leak on the Division II Emergency Diesel Generator Lube Oil Sump

Introduction. The team identified a Green cited violation of 10 CFR 50 Appendix B, Criterion XVI, "Corrective Actions," for the failure to promptly identify and correct a leak on the Division II emergency diesel generator lube oil sump.

Description. The team conducted a walkdown of the Division II emergency diesel generator room as part of their inspection. When walking down the perimeter of the diesel generator, the inspectors noted a large puddle of lube oil on the floor on the engine end of the machine near the lube oil filter. The puddle of lube oil contained saturated pads, which had been previously placed to contain the oil. These pads had been overburdened such that oil surrounded the pads.

The team identified that in 2009, a problem identification and resolution team reviewed this leakage on the Division II emergency diesel generator. The team presented a minor violation to the licensee as part of their exit for the licensee's failure to correct the lube oil sump leak on the Division II emergency diesel generator. The licensee entered this condition into their corrective action program as condition report CR-GGN- 2009-06385.

The team identified that the licensee documented the leak in 2004, and performed an evaluation in 2005. The licensee had attempted to locate the leak to repair it, but had yet to locate and characterize the flaw. The licensee had also scoped repair options such as weld repair and epoxy coating the tank but had not performed these actions due to complications. The licensee subsequently performed an evaluation to accept the leakage and condition of the tank as-is.

The licensee performed a reevaluation of the leak in 2009. The licensee also maintained a monitoring program to observe the amount of leakage and its impact on operability.

The 2011 team considered this leak to be not in accordance with the design configuration of the lube oil sump and therefore to be a non-conforming condition. The inspectors noted that "Operability Determinations and Functionality Assessments for Resolution of Degraded or Nonconforming Conditions Adverse to Quality or Safety," in Part 9900, Technical Guidance, of the NRC Inspection Manual should establish a schedule for completing corrective action when a component is determined to be degraded. Part 9900 also describes the allowance to accept the as-found condition. The team noted that the licensee had not characterized the flaw in the lube oil tank and that the licensee did not fully understand the as-found condition and therefore could not accept a condition that was not fully understood since accurate prediction of behavior under postulated conditions was uncertain. Combining this with the fact that no plans for repair (work order or change package) or any criteria for enacting such repair were present, the team considered the licensee had failed to correct the lube oil sump leak on the Division II emergency diesel generator.

The inspectors considered the failure to restore the lube oil sump for the Division II emergency diesel generator to design conditions to be a performance deficiency.

Analysis. This finding was determined by the NRC to be a minor violation during NRC inspection in 2009. Paragraph F of Section 2.10 of the NRC Enforcement Manual states in part that where a licensee does not take corrective action for a minor violation, the matter should be considered more than minor, associated with a green inspection finding, and dispositioned in a cited or noncited violation, as appropriate. This finding is now determined to be more than minor because if left uncorrected the failure to restore the lube oil sump for the Division II emergency diesel generator to design conditions would have the potential to lead to a more significant safety concern, specifically, the leak could worsen and eventually affect operability of the emergency diesel generator. This finding affects the Mitigating Systems Cornerstone. Using Manual Chapter 0609.04, "Phase 1 - Initial Screening and Characterization of Findings," this finding was of very low safety significance because it did not create a loss of system safety function of a single train for greater than the technical specification allowed outage times, and did not affect seismic, flooding, or severe weather initiating events. This finding has a cross-cutting aspect in the area of problem identification and resolution associated with the corrective action program component because the licensee failed to thoroughly evaluate this problem such that the resolutions addressed the causes [P.1(c)].

Enforcement. 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," states in part that measures shall be established to assure that conditions adverse to quality are promptly identified and corrected. Contrary to the above, since 2004, a condition adverse to quality was not promptly identified and corrected. Specifically, an uncharacterized flaw on the Division II emergency diesel generator lube oil sump has been leaking oil, and this condition has not been corrected. The licensee entered this condition into their corrective action program as condition report CR-GGN-20118880. Due to the licensee's failure to restore compliance within a reasonable time after the violation was identified, this violation is being cited as a Notice of Violation consistent with Section 2.3.2 of the Enforcement Policy: VIO 05000416/2011006-04, "Inadequate Corrective Action for a Leak on the Division II Emergency Diesel Generator Lube Oil Sump," (EA-2012-015).

40A6 Meetings

Exit Meeting Summary

In an initial exit meeting on October 20, 2011, and a re-exit meeting on December 1, 2011, the team presented the inspection results to Mr. M. Perito, Vice President, Operations, and other members of the licensee staff. The licensee acknowledged the issues presented. The inspector asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

40A7 Licensee-Identified Violations

The following violations of very low safety significance (Green) were identified by the licensee and are violations of NRC requirements, which meet the criteria of Section 2.3.2 of the NRC Enforcement Policy for being dispositioned as noncited violations.

- .1 Title 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," requires that licensees promptly identify and correct conditions adverse to quality. Contrary to this requirement, the licensee failed to correct a condition adverse to quality. Specifically, on November 9, 2010, the licensee was issued a noncited violation for the failure to properly assess the risk impact of maintenance on the switchyard batteries. The issue was entered in to the corrective action program as condition report CR-GGN-2010-6668. On October 4, 2011, the licensee identified that the actions taken per condition report CR-GGN-2010-6668 did not adequately address the noncited violation in that the corrective action was focused on the work being performed on the batteries versus appropriately evaluating the heavy work being performed in the switchyard. The licensee entered this issue into its corrective action program as condition report CR-GGN-2011-07674. The finding is of very low safety significance (Green) because it does not contribute to both the likelihood of a reactor trip and the likelihood that mitigation equipment or functions will not be available.
- .2 Title 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," requires that the licensee establish measures to promptly identify and correct conditions adverse to quality. Contrary to this requirement, the licensee failed to adequately correct a condition adverse to quality. Specifically, on February 4, 2010 in response to noncited violation NCV 05000416/2009008-01, "Inadequate Procedure Used to Vent the Reactor Core Isolation Cooling System." The licensee took ineffective action to address a failure to meet Technical Specification Surveillance Requirement 3.5.3.1 when changing the procedure for venting the discharge piping for the reactor core isolation cooling system, Procedure 06-OP-1E51-M-0001, "Reactor Core Isolation Cooling System Operability Verification." This change was inadequate in that it did not ensure the piping was full of water because it vented the piping and then performed confirmatory ultrasonic testing. The issue was entered in to the corrective action program as condition report CR-GGN-2011-07675, in which the licensee resolved this by changing the procedure. The finding is of very low safety significance (Green) because the system was always functional.

ATTACHMENTS: SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee Personnel

J. Browning, General Manager
D. Coulter, Senior Licensing Specialist
J. Edwards, South Mississippi Electric Power Association Representative
H. Farris, Assistant Manager, Operations
D. Hollis, Design Engineering
J. Houston, Manager, Maintenance
D. Jones, Manager, Design Engineering
M. Leupold, System Engineer
C. Loyd, System Engineer
S. Marrs, Corrective Action and Assessments
J. Miller, Manager, Operations
J. Nadeau, Manager, Corrective Action and Assessments
F. Patel, System Engineer
M. Perito, Vice President, Operations
J. Giles, Manager, Performance Improvement
C. Perino, Manager, Licensing
A. Remskar, Operating Experience Engineer
M. Richey, Director, Nuclear Safety Assurance
R. Scarbrough, Licensing Specialist
R. Sorrels, Fire Protection Engineer
D. Wiles, Director, Engineering
R. Wilson, Manager, Quality Assurance

NRC personnel

R. Smith, Senior Resident Inspector
H. Freeman, Senior Reactor Inspector

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Opened and Closed

05000416/2011006-01	NCV	Failure to Take Timely Corrective Actions for Reactor Core Isolation Cooling System Venting (Section 4OA2.5a)
05000416/2011006-02	NCV	Failure to Report a Condition Prohibited by Technical Specifications (Section 4OA2.5b)
05000416/2011006-03	NCV	Failure to Document a Condition as a Significant Condition Adverse to Quality (Section 4OA2.5c)

Opened

05000416/2011006-04	VIO	Inadequate Corrective Action for a Leak on the Division II Emergency Diesel Generator Lube Oil Sump (Section 4OA2.5d)
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Discussed

None

LIST OF DOCUMENTS REVIEWED

Drawings

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
E-0231-035	SCHEMATIC DIAGRAM P64 FIRE PROTECTION SYSTEM CO2 SYSTEM UNITS 1 AND 2	12
E-0231-038A	SCHEMATIC DIAGRAM P64 FIRE PROTECTION SYSTEM CO2 FIRE DAMPER ACTUATION SYSTEM	1
E-0231-052	SCHEMATIC DIAGRAM P64 FIRE PROTECTION SYSTEM CO2 FIRE DAMPER ACTUATION SYSTEM	4
E-1023	ONE LINE METER AND RELAY DIAGRAM 125V DC BUSES 11DA,11DB AND 11DC	33
E-1120-001	SCHEMATIC DIAGRAM R21 LOAD SHEDDING & SEQUENCING SYSTEM LSS TABLE 1 1H22-P331 (DIV 1) PART 1 UNIT 1	12
E-1120-003	SCHEMATIC DIAGRAM R21 LOAD SHEDDING & SEQUENCING SYSTEM LSS TABLE 2 1H22-P332 (DIV 2) PART 1 UNIT 1	015
E-1166-002	SCHEMATIC DIAGRAM C11 CONTROL ROD DRIVE HYDRAULIC SYSTEM CRD DRIVE WATER PUMP C001B-B UNIT 1	5
E-1166-007	SCHEMATIC DIAGRAM C11 CONTROL ROD DRIVE HYDRAULIC SYSTEM CRD PUMP "A" AUX OIL PUMP UNIT 1	5
E-1166-019	SCHEMATIC DIAGRAM C11 CONTROL ROD DRIVE HYDRAULIC SYSTEM CRD PUMP "B" AUX OIL PUMP N1C11C001B-B UNIT 1	2
SFD-1108A	SYSTEM FLOW DIAGRAM SAFEGUARD SWITCHGEAR AND BATTERY ROOMS VENTILLATION SYSTEM – UNIT 1	3

Procedures

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
01-S-07-02	Test Control	108
01-S-18-6	Risk Assessment of Maintenance Activities	10
02-S-01-27	Operations Philosophy	40
02-S-01-35	Outside Rounds	61
02-S-01-41	On Line Risk Assessment	4
03-1-01-2	Integrated Operating Instruction Power Operations	148
04-1-01-F11-3	Fuel Handling Platform	43
04-1-01-F11-4	Fuel Prep Machine Operation	17
04-S-01-Z51-1	Control Room HVAC System	52
06-EL-1L21-O-0001	Battery 1A3, 1B3, 1C3 Performance Discharge Test	105
17-S-02-300	Fuel and Core Component Movement Control	124
EN-FAP-OU-001	Outage Planning and Execution Best Practices	0
EN-LI-102	Corrective Action Process	8
EN-MA-118	Foreign Material Exclusion	4
EN-MA-125	Troubleshooting Control of Maintenance Activities	8
EN-NF-200	Special Nuclear Material Control	8
EN-OE-100	Operating Experience Program	13
EN-OP-115-03	Shift Turnover and Relief	0
EN-OP-115-04	Operations Briefs	0
EN-WM-100	Work Request (WR) Generation, Screening and Classification	6
EN-WM-101	On-line Work Management Process	7
EN-WM-104	On Line Risk Assessment	4

Audit Reports/Self Assessments

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
QA-1-2010-GGNS-1	Quality Assurance Audit Report	September 2, 2010
	System 1Z51 System Health Report Q2-2011	September 12, 2011
	Effectiveness Review of CR-GGN-2009-3779	June 2010
	Effectiveness Review of CR-GGN-2010-6225	May 2011
	Interim Effectiveness Review of CR-GGN-2011-4532	September 2011

Condition Reports

CR-GGN-2011-0001	CR-GGN-2011-5458	CR-GGN-2011-02240	CR-GGN-2009-04125
CR-GGN-2011-0056	CR-GGN-2007-00385	CR-GGN-2011-03628	CR-GGN-2010-01870
CR-GGN-2011-1301	CR-GGN-2010-03147	CR-GGN-2010-05619	CR-GGN-2011-06751
CR-GGN-2011-3480	CR-GGN-2010-03604	CR-GGN-2008-6602	CR-GGN-2009-4001
CR-GGN-2011-3556	CR-GGN-2010-06824	CR-GGN-2006-03953	CR-GGN-2011-2098
CR-GGN-2011-3601	CR-GGN-2011-01868	CR-GGN-2009-00543	CR-GGN-2009-4001
CR-GGN-2011-3602	CR-GGN-2011-03132	CR-GGN-2010-00927	CR-GGN-2010-7315
CR-GGN-2011-3603	CR-GGN-2011-07056	CR-GGN-2011-01642	CR-GGN-2010-2000
CR-GGN-2011-4292	CR-GGN-2011-00009	CR-GGN-2011-4532	CR-GGN-2010-6713
CR-GGN-2011-4391	CR-GGN-2006-03445	CR-GGN-2011-6179	CR-GGN-2011-6226
CR-GGN-2011-4509	CR-GGN-2007-03760	CR-GGN-2010-7690	CR-GGN-2009-4720
CR-GGN-2011-5900	CR-GGN-2009-05991	CR-GGN-2009-3779	CR-GGN-2010-8515
CR-GGN-2010-1883	CR-GGN-2010-05082	CR-GGN-2010-7953	CR-GGN-2011-6736
CR-GGN-2009-3729	CR-GGN-2010-8436	CR-GGN-2010-4839	CR-GGN-2011-4689
CR-GGN-2009-5859	CR-GGN-2010-5529	CR-GGN-2010-6224	CR-GGN-2009-06250
CR-GGN-2009-6186	CR-GGN-2011-6067	CR-GGN-2010-6225	CR-GGN-2010-03330
CR-GGN-2009-6271	CR-GGN-2010-6668	CR-GGN-2010-6584	CR-GGN-2010-03822
CR-RBS-2008-6244	CR-GGN-2011-0121	CR-GGN-2011-3534	CR-GGN-2011-00562
CR-GGN-2011-0151	CR-GGN-2010-4310	CR-GGN-2011-6755	CR-GGN-2011-02779
CR-GGN-2010-5207	CR-GGN-2010-7288	CR-GGN-2011-02835	CR-GGN-2011-01901
CR-HQN-2010-0700	CR-GGN-2011-6267	CR-GGN-2010-03232	CR-GGN-2010-05212
CR-GGN-2011-5418	CR-GGN-2010-6208	CR-GGN-2010-03783	CR-GGN-2006-03360
CR-RBS-2008-5176	CR-GGN-2003-0762	CR-GGN-2011-00455	CR-GGN-2006-04328
CR-GGN-2010-2055	CR-GGN-2010-5669	CR-GGN-2011-02721	CR-GGN-2009-04292
CR-GGN-2010-6895	CR-GGN-2010-02355	CR-GGN-2010-01404	CR-GGN-2010-02611
CR-GGN-2011-6227	CR-GGN-2010-03151	CR-GGN-2010-01180	CR-GGN-2010-2553
CR-GGN-2009-6271	CR-GGN-2010-03739	CR-GGN-2006-00283	CR-GGN-2011-2098
CR-GGN-2011-1623	CR-GGN-2011-00191	CR-GGN-2006-04314	CR-GGN-2010-02631
CR-GGN-2010-7315	CR-GGN-2010-01291	CR-GGN-2009-04292	CR-GGN-2009-05934
CR-GGN-2010-2000	CR-GGN-2010-03601	CR-GGN-2010-02611	CR-GGN-2006-04328

CR-GGN-2010-6713	CR-GGN-2010-05541
CR-GGN-2011-6226	CR-GGN-2011-00851
CR-GGN-2009-4720	CR-GGN-2011-02780
CR-GGN-2010-8515	CR-GGN-2011-05372
CR-GGN-2011-6736	CR-GGN-2010-00167
CR-GGN-2011-4689	CR-GGN-2006-03432
CR-GGN-2009-06250	CR-GGN-2007-03053
CR-GGN-2010-03330	CR-GGN-2011-01901
CR-GGN-2010-03822	CR-GGN-2010-05212
CR-GGN-2011-00562	CR-GGN-2006-03360
CR-GGN-2011-02779	

Work Orders

00230998	00279047
00237815	00279049
00239730	50319439
00252708	51048066
00278955	

Miscellaneous

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
	2011 Security Work Schedule October	September 27, 2011
	2011 Security Shift Roster	September 27, 2011
	Structural Behavior of Fuel and Fuel Channel Components	September 2005
GGNS-CS-05	Standard for Erection of Scaffolding in Seismic Category I Buildings	Revision 2
LO-NOE-2008-0282	River Bend Turbine Building Siding Damage from Hurricane Gustav	January 9, 2009
	Scaffolding Request 15-8586	
	Scaffolding Request 15-8587	
460000535	Operation and Maintenance Manual for Control Room Air Conditioning Units	

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
	Grand Gulf Nuclear Station Control Room Air Condition Unit Compressor Overhaul Preventative Maintenance Instruction	
	EOOS User's Manual Version 3.3a R2	October 2003
	Preventative Maintenance Instruction for Control Room Air Conditioner	301
1016744	An Approach for Evaluating Heavy Load Lifts and Related Maintenance Tasks in Maintenance Rule (a)(4)	November 2008
EC-GGN-25357	Evaluate SOI 04-S-01-Z51-1 to allow opening the Z51F007-A and SZ51F016-B STEP 5.2.1A and PRECAUTION 3.9	0
SDC-Z77	Safeguard Switchgear and Battery Rooms Ventilation System	1
SR 3.8.4.8	Technical Specification Battery Surveillance	159
	30 Day Computer Retrieved Recordings of Division I, Division II AND Division III Battery Room Temperatures	August 7 - October 6, 2011
	90 Day Computer Retrieved Recordings of Division I, Division II, and Division III Battery Room Temperatures	July 8 - October 6, 2011
	365 Day Computer Retrieved Recordings of Division I, Division II, and Division III Battery Room Temperatures	October 6, 2010 - October 6, 2011
17-S-06-10	Performance and System Engineering Instruction Attachment IV Performed 12/7/2006	0

OPERATING EXPERIENCE

<u>Number</u>	<u>Title</u>	<u>Revision</u>
OE31311	Inadvertent Division 2 LOCA Initiation And Subsequent Manual Reactor Shutdown Due To A Rosemount 710du Master Trip Unit C25 Capacitor Failure	May 11, 2010
OE-2011-000999	INPO-IER-L4-11-38 – Causes Of Circuit-Card Related Problems Identified In INPO Areas For Improvement	September 15, 2011
OE-2011-000781	NRC-21-2011-32-00 Rosemount Model 710 Trip Units Would Not Turn On During Testing	July 5, 2011
OE31452	Water Intrusion Into Off-Gas System	May 11, 2010

OPERABILITY DETERMINATIONS

<u>Number</u>	<u>Title</u>	<u>Revision</u>
EN-OP-104	Operability Determination For Division I Battery 1A3 Cell #25	January 31, 2007

VENDOR MANUALS

<u>Number</u>	<u>Title</u>	<u>Revision</u>
460000247	C&D Stationary Battery Installation And Operating Instructions, Also Included Chargers, And Racks	April 10, 2010

**Information Request
Grand Gulf Nuclear Station
August 17, 2011
Biennial Problem Identification and Resolution Inspection – Grand Gulf
Inspection Report 2011-06**

This inspection will cover the period from August 2009 to September 2011. All requested information should be limited to this period unless otherwise specified. To the extent possible, the requested information should be provided electronically in Adobe PDF or Microsoft Office format. Lists of documents should be provided in Microsoft Excel or a similar sortable format.

A supplemental information request will likely be sent during the week of September 26, 2011.

Please provide the following no later than September 15, 2011:

1. Document Lists

Note: for these summary lists, please include the document/reference number, the document title or a description of the issue, initiation date, and current status. Please include long text descriptions of the issues.

- a. Summary list of all corrective action documents related to significant conditions adverse to quality that were opened, closed, or evaluated during the period
- b. Summary list of all corrective action documents related to conditions adverse to quality that were opened or closed during the period
- c. Summary lists of all corrective action documents which were upgraded or downgraded in priority/significance during the period
- d. Summary list of all corrective action documents that subsume or “roll up” one or more smaller issues for the period
- e. Summary lists of operator workarounds, engineering review requests and/or operability evaluations, temporary modifications, and control room and safety system deficiencies opened, closed, or evaluated during the period
- f. Summary list of plant safety issues raised or addressed by the Employee Concerns Program
- g. Summary list of all Apparent Cause Evaluations completed during the period
- h. Summary list of all Root Cause Evaluations planned or in progress but not complete at the end of the period

2. Full Documents, with Attachments

- a. Root Cause Evaluations completed during the period

- b. Quality assurance audits performed during the period
- c. All audits/surveillances performed during the period of the Corrective Action Program, of individual corrective actions, and of cause evaluations
- d. Corrective action activity reports, functional area self-assessments, and non-NRC third party assessments completed during the period (do not include INPO assessments)
- e. Corrective action documents generated during the period for the following:
 - i. NCV's and Violations issued to Grand Gulf
 - ii. LER's issued by Grand Gulf
- f. Corrective action documents generated for the following, if they were determined to be applicable to Grand Gulf (for those that were evaluated but determined not to be applicable, provide a summary list):
 - i. NRC Information Notices, Bulletins, and Generic Letters issued or evaluated during the period
 - ii. Part 21 reports issued or evaluated during the period
 - iii. Vendor safety information letters (or equivalent) issued or evaluated during the period
 - iv. Other external events and/or Operating Experience evaluated for applicability during the period
- g. Corrective action documents generated for the following:
 - i. Emergency planning drills and tabletop exercises performed during the period
 - ii. Maintenance preventable functional failures which occurred or were evaluated during the period
 - iii. Adverse trends in equipment, processes, procedures, or programs which were evaluated during the period
 - iv. Action items generated or addressed by plant safety review committees during the period

3. Logs and Reports

- a. Corrective action performance trending/tracking information generated during the period and broken down by functional organization
- b. Corrective action effectiveness review reports generated during the period
- c. Current system health reports or similar information
- d. Radiation protection event logs during the period
- e. Security event logs and security incidents during the period (sensitive information can be provided by hard copy during first week on site)
- f. Employee Concern Program logs (sensitive information can be provided by hard copy during first week on site)
- g. List of Training deficiencies, requests for training improvements, and simulator deficiencies for the period

4. Procedures

- a. Corrective action program procedures, to include initiation and evaluation procedures, operability determination procedures, apparent and root cause evaluation/determination procedures, and any other procedures which implement the corrective action program at Grand Gulf
- b. Quality Assurance program procedures
- c. Employee Concerns Program procedures
- d. Procedures which implement/maintain a Safety Conscious Work Environment

5. Other

- a. List of risk significant components and systems
- b. Organization charts for plant staff and long-term/permanent contractors

Note: "Corrective action documents" refers to condition reports, notifications, action requests, cause evaluations, and/or other similar documents, as applicable to Grand Gulf.

As it becomes available, but no later than September 15, 2011, this information should be uploaded on the Certrec IMS website if you chose to employ that service. When these documents have been compiled (by September 15, 2011), please download these documents onto a CD or DVD and sent it via overnight carrier to:

Rick Deese – DRP/B
U.S. NRC Region IV
612 E. Lamar Blvd.
Suite 400
Arlington, TX 76011

Please note that the NRC is not able to accept electronic documents on thumb drives or other similar digital media. However, CDs and DVDs are acceptable.